

REMARKS

Claims 21-25 and 27-44 are currently pending in the application. By this amendment, claims 21, 29, and 35 are amended for the Examiner's consideration. The above amendments do not add new matter to the application and are fully supported by the specification. For example, support for the amendments is provided at page 7 of the specification. Reconsideration of the rejected claims in view of the following amendments and remarks is respectfully requested.

35 U.S.C. §101 Rejection

Claims 29-34 are rejected under 35 U.S.C. §101 as directed to non-statutory subject matter. Specifically, the Examiner asserts that claims 29-34 do not define any structural and functional relationships between the computer program and other claimed elements of the computer. As such, the Examiner asserts that claims 29-34 can be interpreted as merely software. This rejection is respectfully traversed.

Claim 29 recites, in pertinent part:

Apparatus for tailoring information in a combination of hardware and software to characteristics of an information user, the apparatus comprising...

According to MPEP §2106, to properly determine whether a claimed invention complies with the statutory invention requirements of 35 U.S.C. §101, it must first be determined whether the claim falls within at least one of the four enumerated categories of patentable subject matter recited in section 101 (i.e., process, machine, manufacture, or composition of matter). The Examiner has asserted that claim 29 is neither computer components nor statutory processes, i.e., the Examiner has asserted that claim 29 does not fall into one of the four enumerated categories. Applicants respectfully disagree with this assertion.

MPEP §2106-§2106.01 explains:

The question of whether a claim encompasses statutory subject matter should not focus on which of the four categories of subject matter a claim is directed to -- process, machine, manufacture, or composition of matter - - [provided the subject matter falls into at least one category of statutory subject matter] but rather on the essential characteristics of the subject matter, in particular, its practical utility.

Applicants submit that claim 29 is directed to statutory subject material because it recites an apparatus for tailoring information in a combination of hardware and software to characteristics of an information user. Applicants submit that the apparatus in combination with hardware and software is clearly a machine and is clearly within one of the four categories of statutory subject matter.

Applicants further submit that claim 29 defines the structural and functional interrelationships between the apparatus, hardware, and software. In particular, Applicants direct the Examiner's attention to MPEP 2106.01, which delineates the differences between "functional descriptive material" and "non functional descriptive material". Without reproducing the entirety of MPEP 2106.01 herein, Applicant submits that

descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions.")

Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. However, Applicants submit that the language of claim 37 is not descriptive material, *per se*. As defined in MPEP 2106.01, data structures not claimed as embodied in computer-readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. However, Applicants submit that the claim

language is not a data structure.

Rather, Applicants submit that claim 29 is directed to statutory subject matter because claim 29 clearly recites an apparatus for tailoring information in a combination of hardware and software. This shows that the software is combined with the hardware, thereby becoming structurally and functionally interrelated with the hardware. Accordingly, Applicants submit that claim 29 is directed to statutory subject matter and, as such, Applicants respectfully request the rejection over claim 29 be withdrawn.

Applicants note that claims 30-34 depend from independent claim 29 and are thus directed to statutory subject matter based on their dependencies from independent claim 29. Accordingly, Applicants respectfully request the rejection over claims 30-34 be withdrawn.

35 U.S.C. § 103 Rejections

Claims 21, 24, 26, 28-30, 33 and 34 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,313,921 issued to Kadowaki ("Kadowaki") in view of "Forecast Pro" in further view of U.S. Patent No. 7,072,888 issued to Perkins ("Perkins"). Claims 22, 31, 32 and 35-44 were rejected under 35 U.S.C. § 103(a) over Kadowaki in view of Forecast Pro, in further view of U.S. Patent No. 6,064,980 issued to Jacobi, et al. ("Jacobi") and Perkins. Claim 27 was rejected under 35 U.S.C. § 103(a) over Kadowaki in view of Forecast Pro, Perkins, Jacobi, and in further view of U.S. Patent No. 6,556,963 issued to Tetzlaff ("Tetzlaff"). Claims 23 and 25 were rejected under 35 U.S.C. § 103(a) over Kadowaki and Forecast Pro in view of Perkins and in further view of U.S. Patent No. 6,044,376 to Kurtzman II ("Kurtzman"). These rejections are respectfully traversed.

In order to reject a claim under 35 U.S.C. § 103(a), the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to

submit evidence of nonobviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP §2142. Applicants submit that no proper combination of the applied art teaches or suggests each and every feature of the claimed invention.

Rejection of Claims 21 and 29 in View of Kadowaki, Forecast Pro, and Perkins

Claim 21 recites, in pertinent part:

... actively selecting, by analysis of the relevant profile elements, a personalization engine, which is configured to provide an optimal performance, from a plurality of personalization engines by the arbiter, the arbiter refining and altering a selection based on a number and type of the relevant profile elements, wherein the plurality of personalization engines are a collaborative filtering engine, a predictive-modeling personalization engine, and a business-rules engine, the collaborative filtering engine provides an optimal performance when information is known about a group of users, the predictive-modeling personalization engine provides an optimal performance when a user is unknown, and the business-rules engine provides an optimal performance when the personalization engine needs to change in response to one or more changing circumstances...

Claim 29 recites, in pertinent part:

... a plurality of personalization engines for selecting at least one personalized content object from the content database, wherein the plurality of personalization engines are a collaborative filtering engine, a predictive-modeling personalization engine, and a business-rules engine,

the collaborative filtering engine provides an optimal performance when information is known about a group of users, the predictive-modeling personalization engine provides an optimal performance when a user is unknown, and the business-rules engine provides an optimal performance when the personalization engine needs to change in response to one or more changing circumstances...

The Examiner has not addressed the above noted features of claims 21 and 29, as amended. Applicants submit that the features of amended claims 21 and 29 are not disclosed in the applied art, i.e., Kadowaki, Forecast Pro, and Perkins. Specifically, Applicants submit that the applied art does not disclose a plurality of personalization engines being a collaborative filtering engine, a predictive-modeling personalization engine, and a business-rules engine, much less the collaborative filtering engine providing an optimal performance when information is known about a group of users, the predictive-modeling personalization engine providing an optimal performance when a user is unknown, and the business-rules engine providing an optimal performance when the personalization engine needs to change in response to one or more changing circumstances.

The Examiner asserts that Kadowaki actively selects a personalization engine from a plurality of personalization engines. Applicants disagree and assert that, even if Kadowaki does include personalization engines, which Applicants do not concede, there is no disclosure that the personalization engines are collaborative filtering engines, predictive-modeling personalization engines, and a business-rules engines.

Instead, Kadowaki is directed to an image forming system, i.e., a printing system, which allows a user to personalize a print job. Exemplary personalizations include allowing a user to store specific fonts, cover sheets, pictures, etc., which may be used whenever the user prints a job. These personalizations are stored on personalizing servers, which are accessed by a printer controller when determining what personalizing information should be sent in response to a user ID. (See, e.g., col. 15, lines 40-53.)

At no point does Kadowaki disclose the plurality of personalization engines being a collaborative filtering engine, a predictive-modeling personalization engine, and a business-rules engine. Moreover, even if Kadowaki were to disclose these personalization engines, which Applicants do not concede, Applicants submit that there is no indication that the collaborative filtering engine provides an optimal performance when information is known about a group of users. Moreover, Applicants submit that Kadowaki provides no disclosure that the predictive-modeling personalization engine provides an optimal performance when a user is unknown. Similarly, Kadowaki provides no disclosure that the business-rules engine provides an optimal performance when the personalization engine needs to change in response to one or more changing circumstances. Accordingly, Applicants submit that Kadowaki does not disclose the features of claims 21 and 29, as amended.

The Examiner asserts that Forecast Pro selects a personalization engine from a plurality of personalization engines. However, Applicants assert that these personalization engines are not a collaborative filtering engine, a predictive-modeling personalization engine, and a business-rules engine. Rather, Applicants submit that Forecast Pro attempts to forecast business solutions by entering inputs into an expert system and chooses an algorithmic model, e.g., Box-Jenkins, Dynamic Regression, etc., to apply to the inputs. The result of the algorithmic model is a business forecast. However, none of these models encompass the collaborative filtering engine, the predictive-modeling personalization engine, and the business-rules engine feature of claims 21 and 29. Moreover, even if these engines were disclosed by Forecast Pro, which Applicants do not concede, there is no disclosure that the collaborative filtering engine provides an optimal performance when information is known about a group of users. Moreover, there is nothing to indicate that the predictive-modeling personalization engine provides an optimal performance when a user is unknown. Likewise, there is nothing to suggest that the business-rules engine provides an optimal performance when the personalization engine needs to change in response to one or

more changing circumstances. Accordingly, Applicants submit that Forecast Pro fails to disclose the features of claims 21 and 29, as amended.

The Examiner alleges that Perkins discloses the feature of excluding profile elements to an input logic. Applicants disagree and further submit that, even assuming *arguendo* that Perkins does disclose this feature, Perkins does not include a personalization engine. Rather, Perkins is directed to a process for refining results of a query to an internet search engine database. (Abstract.) Perkins includes a database table of user profiles, which Perkins uses to tailor search results to individual search engine users. (See columns 5 and 6 for exemplary profile fields.) However, at no point does Perkins disclose a personalization engine. Moreover, Perkins definitely does not disclose a personalization engine being a collaborative filtering engine, a predictive-modeling personalization engine, and a business-rules engine, where the collaborative filtering engine provides an optimal performance when information is known about a group of users, the predictive-modeling personalization engine provides an optimal performance when a user is unknown, and the business-rules engine provides an optimal performance when the personalization engine needs to change in response to one or more changing circumstances. As such, Applicants submit that Perkins also fails to disclose the features of claims 21 and 29, as amended. Accordingly, Applicants respectfully request the rejection of claims 21 and 29 be withdrawn.

Dependent Claims 22-28 and 30-34

Claims 22-28 and 30-34 are dependent claims, depending from distinguishable independent claims 21 and 29, respectively. For these reasons, Applicants submit that these claims are allowable for at least the reasons discussed above with respect to independent claims 21 and 29. Accordingly, Applicants respectfully request the rejection over claims 22-28 and 30-34 be withdrawn.

Rejection of Claim 35 in View of Kadowaki, Forecast Pro, Jacobi, and Perkins

Claim 35 recites, in pertinent part:

... selecting with the arbiter a personalization engine by analysis of the relevant profile elements, wherein the personalization engine is at least one of a collaborative filtering engine, a predictive-modeling personalization engine, and a business-rules engine, the collaborative filtering engine provides an optimal performance when information is known about a group of users, the predictive-modeling personalization engine provides an optimal performance when a user is unknown, and the business-rules engine provides an optimal performance when the personalization engine needs to change in response to one or more changing circumstances...

As discussed above, Kadowaki, Forecast Pro, and Perkins all fail to disclose a personalization engine which is a collaborative filtering engine, a predictive-modeling personalization engine, and a business-rules engine, where the collaborative filtering engine providing an optimal performance when information is known about a group of users, the predictive-modeling personalization engine providing an optimal performance when a user is unknown, and the business-rules engine providing an optimal performance when the personalization engine needs to change in response to one or more changing circumstances. Applicants further submit that Jacobi also fails to disclose at least this feature of claim 35.

The Examiner uses Jacobi to address the on-line shopping feature of the claimed invention. Applicants do not concede that Jacobi discloses this feature, and assert that even if Jacobi were to disclose this feature, Jacobi does not include a personalization engine. Instead, Jacobi is directed to a system and method for collecting ratings from users. More specifically, Jacobi allows a first user to rate a list of items and stores the ratings with other ratings in a database. Jacobi then filters the rated items to create a new list of items, which is presented to second, third, and/or fourth users for ranking. However, at no point does Jacobi utilize a personalization engine. Moreover, even if Jacobi were to use a personalization engine, which

Applicants do not concede, Applicants submit that Jacobi provides no indication that the personalization engine would be a collaborative filtering engine, a predictive-modeling personalization engine, and a business-rules engine. Moreover, Jacobi provides no indication that the collaborative filtering engine would provide an optimal performance when information is known about a group of users or that the predictive-modeling personalization engine would provide an optimal performance when a user is unknown. Jacobi also fails to provide any indication that the business-rules engine would provide an optimal performance when the personalization engine needs to change in response to one or more changing circumstances. Accordingly, Applicants submit that Jacobi fails to disclose the features of claim 35, as amended. As such, Applicants respectfully request the rejection of claim 35 be withdrawn.

Dependent Claims 36-44

Claims 36-44 are dependent claims, depending from distinguishable independent claims 35. For this reason, Applicants submit that these claims are allowable for at least the reasons discussed above with respect to independent claim 35. Accordingly, Applicants respectfully request the rejection over claims 36-44 be withdrawn.

CONCLUSION

Applicants submit that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby makes a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Deposit Account No. 09-0457.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'A. M. Calderon', written over a horizontal line.

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